

EDITORIAL.

THE UTILITARIAN side of botany is one that is not attractive to the majority of botanists, unless it be in that intensely personal way embodied in the retort of a Harvard professor when annoyed by the inconsiderate question of a visitor to whom he was showing an object under the microscope. "And what is the use of it all", said the visitor. "It brings me my bread and butter", was the quick reply. It is to be feared that there are botanists who would feel that the science was sufficiently recognized if a proper number of places with comfortable salaries attached were provided for deserving aspirants, who might retire from the distractions and contamination of the world and devote their lives to pure science without being prodded into giving a thought to any possible application of their results to the practical affairs of life. Such positions are never likely to be numerous. In the meantime the world is clamoring for chemists and electricians and representatives of other departments of science to stand as sureties that capital shall not be misdirected. The increasing variety and complexity of the requirements makes evident the necessity for a more complete knowledge of the principles involved, and thus a return road is open to original investigation. This not only means a readier recognition of the value of the science, but increased tolerance for its more abstruse phases that appear to have no present relation to commercial life.

MEDICINE WAS the first patron of botany, and in foreign countries is still one. The early botanists were physicians, and studied plants to discover their medical properties. The first botanic gardens were founded with this purpose in view. Afterward came the study and cultivation of plants brought together by travelers and explorers with the expectation of an increase of the natural productions upon which commerce thrives. This is especially marked in the maritime nations, such as England and France. It is the principal motive for the maintenance of the Royal Gardens at Kew. In America, neither of these interests have much affected the growth of the science. In fact, not until recently has botany been much called upon to lend material aid to the development of the western world. This time it is agriculture that lends a hand, and it has come largely through the establishment of the agricultural colleges, the agricultural experiment stations and the section of vegetable pathology in the Department of Agriculture at Washington. However, none of these gave the initiative to the present train of thought. It came from a visit to a large pharmaceutical establishment at Indianapolis, in which a professional botanist is

employed, with facilities for doing good work both for his employers and for science. Why may we not hope that other and various kinds of commercial enterprises may find it profitable to make use of the services of well trained botanists? The science is not likely to lose anything by it, and there are possibilities of considerable gain.

CURRENT LITERATURE..

Minor Notices.

EDUCATION for March contains an article by Prof. Conway MacMillan in which the evils of the common three-months course in botany are vigorously exposed, as they have been many times before, and will need to be many times more. The theme is an inexhaustible one and the remedy proposed will be as polymorphous as the writers are numerous. For example: in our judgment the remedy lies in the education of the teacher and not necessarily in the change of course.

BOOKS ON the diseases of plants are increasing. The third one in the English language has just been issued, and imitates its predecessors in form, size, and in its British origin. The work is by Dr. A. B. Griffiths,¹ and deals with the injuries to plants brought about by plant, animal and other agencies. A large number of plant affections are treated in a very brief manner, and in most instances a cure or preventive is given. Two drawbacks to the usefulness of the work are prominent: the inadequate accounts of the maladies, and the rather antiquated character of part of the information that is included. The author has made a praiseworthy attempt to provide (suggest does not seem to be the right word) remedies and preventives, but they are largely founded upon general principles, such as: destroy all infected plants, apply a solution of iron sulphate, topdress the land with gas-lime or quicklime. England is far behind the United States in the knowledge and use of specific remedies for plant ailments.

DR. ROLAND THAXTER has issued a supplementary note (Proc. Am. Acad. p. 261, presented Jan. 14, 1891) to his former paper on N. Am. *Laboulbeniaceæ*. The additions of a single season have been so unexpectedly large and important that it has been thought wise to defer the promised monograph. With the present additions, the species of

¹GRIFFITHS, A. B.—The diseases of crops and their remedies: a handbook of economic biology for farmers and students. pp. 174. Illustrated. 12°. London: George Bell & Sons, 1890. 2s. 6d.